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(19) (CA) **CANADIAN PATENT** (12)

(54) Device for Indicating the Fully Charged State of a
Battery

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Abstract of the Disclosure

The temperature rise associated with the catalytic recombination of battery gases at the end of the charging process is converted into an electrical signal suitable for checking and controlling charging, in a temperature-sensitive component such as a commercially available NTC or PTC resistor coated with a PTFE-bound palladium-activated carbon mixture. An additional activated carbon layer protects the catalyst from poisoning by the stibine present in the battery gases.

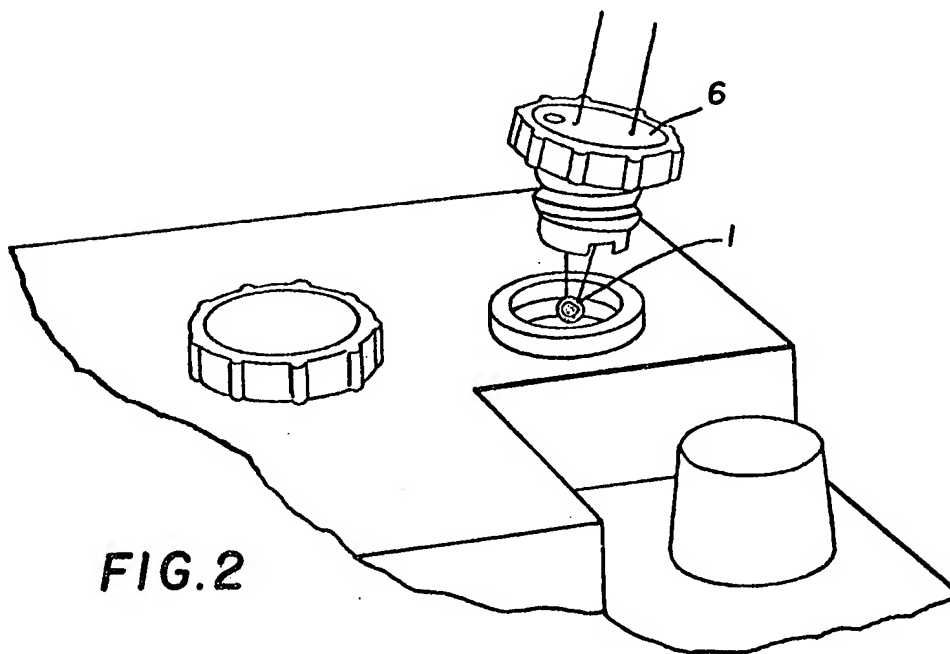
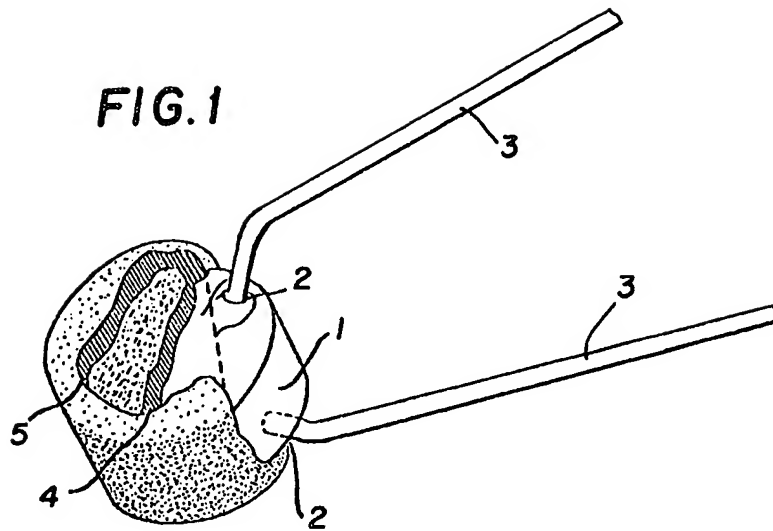
THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE
PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A device for indicating the fully charged state of a storage battery, especially a lead-acid storage battery, by determining the temperature of a recombination catalyst, comprising a temperature-sensitive electronic component from which extend electrical leads and having an outer surface which is provided at least partially with catalyst material and is adapted for exposure to the battery gases, wherein the catalyst material is covered with an antimony-adsorbing layer.
2. The device of claim 1, wherein the electronic component is a temperature-sensitive resistor.
3. The device of claim 1, wherein the catalyst is a mixture of carbon and palladium.
4. The device of claim 1, wherein the antimony-adsorbing layer is comprised of activated carbon.
5. The device of claim 1, wherein the electronic component is coated with a nonconducting material at least in the region of the electrical leads.
6. A device for indicating the fully charged state of a storage battery, especially a lead-acid storage battery, by determining the temperature of a recombination catalyst, comprising a temperature-sensitive electronic component from which extend electrical leads and having an outer surface which is provided at least partially with catalyst material and is adapted for exposure to the battery gases wherein the catalyst material is comprised of a mixture of carbon and palladium.
7. The device of claim 6, wherein the electronic component is a temperature-sensitive resistor.

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